

MEMORANDUM OF UNDERSTANDING
Between
THE GREEN GRID ASSOCIATION
And
THE U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

I. Purpose

The purpose of this Memorandum of Understanding (MOU) is to establish a working agreement pursuant to this non-binding expression of intent between The Green Grid Association (Green Grid) and the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) to promote increased energy efficiency in U.S. data center facilities and by Green Grid members.

The intent of this MOU is to support a variety of activities which aim to assist data center facilities to initiate and implement an energy management program, adopt clean energy and efficiency technologies and to achieve continual efficiency improvements. The Green Grid and EERE will also coordinate in measuring and documenting the energy savings achieved in Green Grid member company data centers and their customers as impacted by the Green Grid/EERE energy efficiency campaign.

II. Background

Data centers within the United States operate continuously at energy intensive levels. Data center electricity consumption has been estimated at 1.2 percent of total U.S. electricity demand in 2005. Data centers are experiencing significant growth throughout the U.S. and in many countries, making this one of the fastest growing energy-use industry sectors that is and will continue to impact electrical supply and distribution systems. In some regions, the ubiquitous growth of data centers has increased electrical demands on already-strained distribution systems. The information technology industry is an important area of economic growth. Energy has now become a major operating cost for data centers and the availability and reliability of power further complicates system design and efficiency. Both economic development and energy program goals can be served by initiatives that (1) reduce energy costs for existing and prospective facilities, (2) mitigate the impact of data center development on electrical infrastructure and (3) encourage the development of distributed energy to enhance reliability and encourage a diversity of electric supply into the grid.

The initiatives contemplated hereunder aim to accelerate the adoption of best-available energy efficiency technologies in all areas of data center infrastructure and to develop and deploy leading-edge energy management practices. The goal of each party is to make publicly available data center energy assessments, applicable tools, training programs, and relevant case studies.

III. Collaboration

Green Grid and EERE will each commit to putting forth a good faith effort to work together to the extent practical and authorized by law to:

(A) Together

- Develop a common set of best practice information, terminology and tools.
- Develop a simple "quick start" website so that data centers can easily access tools and resources through a common website portal to assist them in initiating and implementing an energy management program.
- Coordinate a national campaign to encourage data centers to obtain energy savings assessments that benchmark their energy (electric and thermal) consumption at respective facilities and specifically identify process and equipment improvements.
- Train company personnel in conducting energy savings assessments and in using proven tools in identifying energy efficiency enhancements.
- Define potential areas of pre-competitive, high-impact research and development relating to computer servers, data center infrastructure and on-site energy systems.

(B) EERE

- Organize and implement energy efficiency technology demonstrations in Federal and other public sector data centers.
- Develop Federal procurement specifications for Federal data centers that will advance the design and implementation of efficiency technologies to the maximum extent economically practical.

(C) Green Grid

- Green Grid will continue its ongoing efforts to encourage its members to evaluate and monitor their respective energy consumption practices and to promote within its own organization and among its members greater use of energy efficient and renewable energy technologies and techniques that can reduce both costs and greenhouse gas emissions.
- Green Grid will provide information to its members and their respective employees about the opportunities for and the benefits of energy efficiency and renewable energy, and about the products and practices that can achieve both energy and cost savings.
- Green Grid will help raise awareness in Green Grid member companies and their customers of external resources available to data centers that would assist in the implementation of energy efficiency technologies and best practices, including, but not limited to:

- a. loan guarantees for equipment installation,
- b. state and utility energy efficiency incentive and rebate programs,
- c. state grant programs for energy efficient technology demonstrations, and
- d. private sector energy efficiency vendors and service providers, including energy service companies (ESCOs) which can provide third party financing for energy efficiency investments.

IV. General

- (A) This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.
- (B) Green Grid agrees that the activities it undertakes herein are not intended to provide services to the Federal Government and that it will not seek compensation from DOE in connection with its participation hereunder.
- (C) Green Grid agrees that it will not claim or imply that DOE endorses the sale and purchase of its products and services or those of its member companies.
- (D) This MOU can be terminated by either party at any time by providing notice in writing to the other party.
- (E) This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations or individuals.
- (F) This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

DEPARTMENT OF ENERGY

By

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Alexander A. Karsner
Assistant Secretary, Energy Efficiency
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THE GREEN GRID ASSOCIATION

By

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